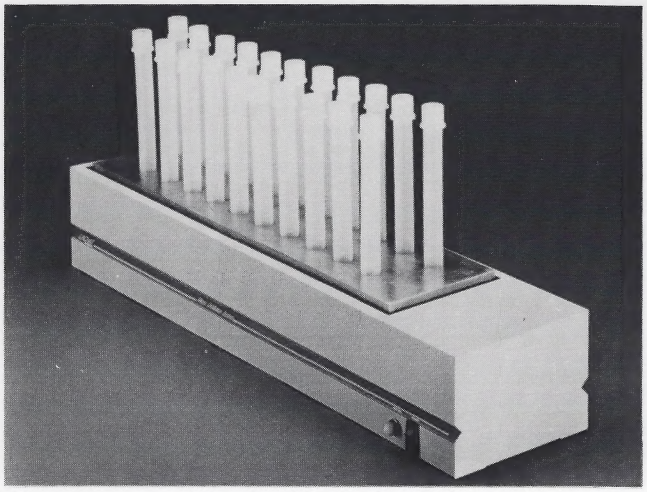
DATA SHEET 1700-000

LACHAT INSTRUMENTS

Micro-Dist™ System

RAPID DISTILLATION OF CYANIDES AND TOTAL RECOVERABLE PHENOLICS



With the Micro-Dist System from Lachat Instruments, you can now distill up to 21 cyanides in 30 minutes or 21 phenolics in 60 minutes!

INTRODUCTION

USEPA-approved methods for the determination of several chemical species in environmental samples using the QuikChem® Automated Ion Analyzer have been approved for several years. Based on the technique of flow injection analysis, these methods provide rapid, accurate and precise determinations.

However, for some analytes, samples must be taken through a complicated and time-consuming distillation process to remove the analyte from a potentially interfering matrix prior to automated analysis. As a result, the analyst has been required to use a low-throughput, large volume manual distillation method involving classical vaporization, condensation and collection with expensive and fragile macro-scale glassware. This is incompatible with the productivity features of the micro-method of flow injection analysis.

In response to the need for a more expeditious sample preparation method, the Lachat Micro-Dist System has been developed. Accommodating 21 samples simultaneously, this system provides a means for semi-automatically distilling samples prior to automated analysis. The most popular application is in the distillation of cyanides and total recoverable phenolics.

PRODUCT DESCRIPTION

The Micro-Dist System quantitatively reduces the volumes of samples and reagents specified in USEPA methods 335.2 for cyanides and 420.1 for phenolics delineated in Methods for Chemical Analysis of Waters and Wastes. Drawing on the analogy of a block digestor, Micro-Dist is a batch micro-distillation system using sample volumes of less than 10 ml.

The key to the system is a disposable distillation tube assembly (patent pending). In practice, the sample is dispensed into a sample tube which is then inserted into a collector tube containing a hydrophobic membrane. The tubes are then inserted into a heating block where the sample is boiled with the resulting vapor passing through the membrane, condensing and being collected above the membrane.

Following completion of the distillation, the tube is broken in half and the distillate is brought up to volume. The collector tube is then placed directly on the sampler for automated analysis. Thus, manual sample handling by the analyst is minimized. In addition, the sample is distilled under conditions that are significantly more reproducible than those of a macro-distillation procedure.

PHYSICAL DATA				
LENGTH	DEPTH	HEIGHT	WEIGHT	POWER
26 in.	7 in.	5 in.	38 lb.	220 VAC
67 cm	18 cm	13 cm	17 kg	50-60 Hz

ORDERING INFORMATION

Cat. No. 1700-000

Micro-Dist System to include heating block, temperature controller, and accessories kit.

Cat. No. 1700-001

Disposable tubes for distillation of cyanides (pkg/21).

Cat. No. 1700-002

Disposable tubes for distillation of phenolics (pkg/21).

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